

Monthly Confidential Report
(Published at the end of each month)

Summary

MONTHLY **ELECTROPHOTOGRAPHY**

- Comprehensive Research and Analysis of PPCs, Laser/LED Printers,
Toner, Resin, Photoconductor, Rollers and Related Components of
Electrophotography -

2023. 9



Konica Minolta (A3+/Monochrome) AccurioPress 7136



Brother Industries China (A4/Color) MFC-L3768CDW



Ricoh (A3+/Color) RICOH Pro C7500



Toshiba TEC China (A3/Monochrome) e-STUDIO2823AMW



Market Research of Japan, China, USA, and Europe
Data Supply Inc.

Sample Page
Excerpt from "Follow Up"

■ Follow Up ■

F - Monochrome Printer/MFP (A4) - Canon - 7

This is the follow-up of Canon's A4 monochrome printers/MFPs (21-30ppm). Demand for remote workers due to COVID-19 has been filled and is now trending downward.

Major Model	Speed [ppm]	Sales area	Shipment volume [unit]		
			-21	-22	-23,Q2
(S)EN8VS MF112/11A (imageCLASS MF112/11601) (S)EN5VS LRP113/113 (imageCLASS LBP112/11391)	Japan [Area]	Oceania			
MF23256 LRP0330/0340/040	Europe [Area]	Japan			
(S)EN5VS MF237 (imageCLASS MF4670)		Oceania			

Sample Page
Excerpt from "Newly Released"
(Professional – Japan)

■ Newly Released ■
[Japan]

N - Color Production Printer (A3+) - Ricoh - 5

Product Name	BICOH Pro C7500			
Price	¥18,290,000 yen*/¥15,340,000 yen *when an upgrade license is installed for C7500.			
Release Date	September 11, 2023			
Size	A3+			
Speed	80ppm in C&M (A4) 80ppm in C&M (A3) *when an upgrade license is installed for C7500.			
Function (*is optional.)	Copy	Printer	FAX	Scanner
Target Sales Volume (Japan)	300 units/year (estimated by Data Supply Inc.)			



【Positioning】

	New	The RICOH Pro
	SiCROSS®	98/85ppm in C, a
	Other	through an upper
		long and duplex
		added to flexibly
	Supplied as OEM	designed for com
		enhance operabi
		from its predece

【Sales Target】

Target	The device is des
--------	-------------------

【Product Lineup and Comp

Model	
RICOH Pro C7500	
*when an upgrade license is installed	
RICOH Pro C7500	
Competitive Model	"AccurioPress C7100" (Komori)
	"Revoria Press EC1100" (Fuji Xerox)

【Marketability】

The target market is the CRD and toners expands the color gamut and gold and silver toner, neon yellow, the outcome of printed materials. T materials and realize skill less open. The expressive special toners will is not expected to change significant. The sales volume for this series is e

Sample Page

Excerpt from "Featured Article - Latest Market Trends in Production Print (PP hardware and PP toner)"

1. Production printer shipment trends

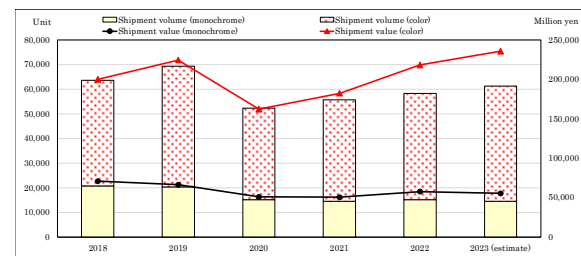
1-1. Shipment trends by monochrome and color machines (2018-2023)

1) Shipment volume

		17 Shipment volume										Unit	
Item	Year	2018		2019		2020		2021		2022		2023 (estimate)	
			%		%		%		%		%		%
Monochrome		20,680	32.5	20,310	29.3	15,180	29.1	14,516	26.1	15,160	26.0	14,500	23.7
	%			98.2		74.7		95.6		104.4		96.3	
Color		42,960	67.5	49,050	70.7	37,070	70.9	41,145	73.9	43,992	74.0	46,760	76.3
	%			114.2		75.6		111.0		104.7		108.4	
Total		63,640	100.0	69,360	100.0	52,250	100.0	55,661	100.0	58,252	100.0	61,260	100.0
	%			109.0		75.3		106.5		104.7		105.1	

2) Shipment value

		Million yen											
Year		2018		2019		2020		2021		2022		2023 (estimate)	
Item			%		%		%		%		%		%
Monochrome		70,800	26.2	66,300	22.8	50,840	23.9	50,350	21.6	57,610	20.9	55,300	19.0
	%			93.6		76.7		99.0		114.4		96.0	
Color		199,900	73.8	224,500	77.2	162,200	76.1	182,330	78.4	218,170	79.1	235,600	81.0
	%			112.3		72.2		112.4		119.7		108.0	
Total		270,700	100.0	290,800	100.0	213,040	100.0	232,680	100.0	275,780	100.0	290,900	100.0
	%			107.4		73.3		108.2		119.5		105.5	



Worldwide production printer (PP) shipments in 2022 were 58,252 units (monochrome PP: 15,160 units; color PP: 43,092 units), up 104.7% from the previous year, and the shipment value was 275.78 billion yen, up 118.5% from the previous year (monochrome PP: 57.61 billion yen; color PP: 218.17 billion yen).

In contrast, in value terms, it is approaching the 2019 level (95% of the 2019 results), partly due to the effects of the weaker yen. The recovery trend will continue after 2023.

Sample Page

Sample Page Excerpt from "Other News"

O - Financial Statement - HP - 2

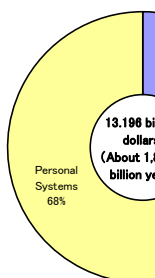
HP (HP Inc.) announced its financial statement for 3Q of FY2023 (May-July 2023).

① Overall (3Q)

Unit: million dollars

	Sales	Growth rate	Operating profit	Profit margin	Net profit	Profit margin
Printing	\$4,263	-6.8%	\$794	18.6%	—	—
Personal Systems	\$8,932	-11.3%	\$592	6.6%	—	—
Corp Investments / Other	\$1	nm	(\$220)	nm	—	—
Total HP						

Sales by seg



Company-wide sales decreased by 164.4 billion yen at an exchange rate of 164.4 billion yen; 8.8% profit margin; 6.5% profit margin). Sales of the Printing segment (13.1 billion yen), and operating margin).

*All the value above is in billion yen.

Sample Page Excerpt from "Production News"

■ Production News ■

P - Printer - Deli - 1

We report on the printer business of Chinese printer manufacturer Deli from our 2023 version of the Chinese Market Survey Report published in August (Japanese version).

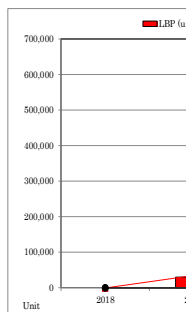
Deli is a leading Chinese stationery retailer founded in 1988. It has a dealer network of more than 45,000 stores throughout China, as well as an online business for corporations. Regarding the printer business, **following the launch of mass production of laser printers (LBP) in 2019, it also succeeded in mass production of inkjet printers (IJP) in 2022.**

Shipment volume of LBPs is 524,000 units and IJPs 90,000 units in 2022. Its LBPs are mainly sold under its own brand, while its IJPs are mostly OEM for HUAWEI. In both cases,

shipments have been growing steadily. The printer engine is based in Osaka. **The inkjet printer** has been supplied to various companies.

Its A3 MFJs are also supplied to various companies. The shipment volume of units annually to the Chinese market is approximately 100,000 units.

<History of



*Source: our 2023 version of the Chinese Market Survey Report (2023; Japanese version)

The report provides a detailed analysis of the printer business. If you're interested in the printer business, please contact us.

Sample Page Excerpt from "Environmental News"

■ Environmental News ■

E - Recycled PET Resin - Sanyo Chemical Industries - 1

On September 4, Sanyo Chemical Industries (Headquarters: Kyoto, Japan), a manufacturer of toner resin, **announced that it has succeeded in developing a toner binder containing more than 50% used PET (polyethylene terephthalate) resin.** While other companies also produce toner binders that use more than 20% used PET resin, Sanyo Chemical Industries (Sanyo Chemical) has achieved a higher content ratio by selecting the optimal non-crystalline component and adjusting how much it is used.

As print quality is becoming higher with increased definition, toners have also been required to have better performance. However, with the increasing need for energy conservation in recent years, there is also a demand for low-temperature fusing properties that melt and fix at lower temperatures to reduce power consumption. Sanyo Chemical has been developing toner binders that meet high definition and high image quality standards while achieving low-temperature fusing.

In recent years, toner manufacturers have been particularly demanding environmentally friendly products. Amid this, the company has continued to study toner binders containing 50% or more recycled PET resin that contributes to reducing environmental impact while maintaining high toner performance. **Currently, Sanyo Chemical is exploring potential needs from toner manufacturers, and it is expected to take some time before it is commercially available at a full scale. In particular, whether Sanyo Chemical's largest customer Ricoh will adopt it will largely determine its success or failure.**

Polyester resins used as toner binders are generally amorphous, meaning molecules are randomly arranged and molecular weights ranging from several thousand to several tens of thousands. Meanwhile, recycled PET resin has molecules regularly arranged (crystalline) and has an ultra-high molecular weight of several hundred thousand to several million or more. Since their properties are very different, it was necessary to convert recycled PET resin to suitable properties in order to incorporate it into toner binders. Specifically, Sanyo Chemical selected the optimal non-crystalline component and adjusted the amount to be used so the recycled PET resin ratio would increase. It then succeeded in controlling reaction conditions such as reaction temperature and reaction time suitable for amorphization.

Sanyo Chemical plans to apply the recycled PET resin technology to other fields, such as functional chemicals for apparel products.

◆ Features of environmentally friendly toner binder with recycled PET resin

- (1) Recycled PET resin content ratio: 50% or more
- (2) Demonstrates resin properties (viscoelasticity and low-temperature fusing) equivalent to the company's conventional products without recycled PET resin
- (3) Resin properties and functions can be customized to meet user needs.

September 2023

■Featured Article■

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■Follow Up■

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■Newly Released■

[Japan]

<Professional>

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<Office>

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(AccurioPress C14000/C12000 Enhanced Series)	

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■ Environmental News ■

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■ Production News ■

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